2.6 FINANCIAL STATEMENTS ANALYSIS

2.6.1 Financial Statements

The word 'final accounts' stands for statements which are finally made to show the loss suffered or profit earned by the business firm and financial situation of the firm at the end of the period involved. So to know the profit or loss earned by a company, trading and profit and loss account or income statement is made. This statement is as well- known as 'instruction of functioning's'. Once the financial position is estimated by means of preparing a balance sheet of the business concern. Even this statement is as well- known as 'place instruction' or 'instruction of financial status'.

Financial statements of an organization built at the end of an accounting period of time, generally the financial (fiscal) year.

The final account is a somewhat early book keeping term that relates to the final trial balance at the end of an accounting system period from which the fiscal statements are came. The final trial balance includes the entire journal entries used to close the books of accounts, specified payroll tax and wage accruals, depreciation and amortization, overhead assignation and customer charges. Hence, the final accounts can refer to the financial statements or the final trial balance upon which they are placed. Primary financial statements are the earnings report, statement of cash flows and balance sheet.

Usually, a final account includes the following components :

- Trading Account
- Manufacturing Account
- Profit and Loss Account
- Balance Sheet

Trading Account

Trading accounts represents the Gross Profit/Gross Loss of the concern out of sale and purchase for the particular accounting period.

Study of Debit side of Trading Account

- **Opening Stock :** Unsold closing stock of the last financial year is appeared in debit side of the Trading Account as "To Opening Stock" of the current financial year.
- **Purchases :** Total purchases (net of purchase return) including cash purchase and credit purchase of traded goods during the current financial year appeared as "To Purchases" in the debit side of Trading Account.
- **Direct Expenses :** Expenses incurred to bring traded goods at business premises/ warehouse called direct expenses. Freight charges, cartage or carriage charges, custom and import duty in case of import, gas, electricity fuel, water, packing material, wages and any other expenses incurred in this regards comes under the debit side of Trading Account and appeared as "To Particular Name of the Expenses".
- **Sales Account :** Total Sale of the traded goods including cash and credit sales will appear at outer column of the credit side of Trading Account as "By Sales." Sales should be on net releasable value excluding Central Sales Tax, Vat, Custom and Excise Duty.
- **Closing Stock :** Total Value of unsold stock of the current financial year is called as closing stock and will appear at the credit side of Trading Account.

  Closing Stock = Opening Stock + Net Purchases – Net Sale
- **Gross Profit :** Gross profit is the difference of revenue and the cost of providing services or making products. However, it is calculated **before** deducting payroll, taxation, overhead and other interest payments. Gross Margin is used in the US English and carries same meaning as the Gross Profit.

  Gross Profit = Sales – Cost of Goods Sold

- **Operating Profit :** Operating profit is the difference of revenue and the costs generated by ordinary operations. However, it is calculated **before** deducting taxes, interest payments, investment gains/losses and many other non-recurring items.

  Operating Profit = Gross Profit – Total Operating Expenses

- **Net Profit :** Net profit is the difference of total revenue and the total expenses of the company. It is also known as net income or net earnings.

  Net Profit = Operating Profit – (Taxes + Interest)

Format of Trading Account

Trading Account of M/s ABC Limited (For the period ending 31-03-2018)			
Particulars	**Amount**	**Particulars**	**Amount**
To Opening Stock	XX	By Sales	XX
To Purchases	XX	By Closing Stock	XX
To Direct Expenses	XX	By Gross Loss c/d	XXX
To Gross Profit c/d	XXX		
Total	**XXXX**	**Total**	**XXXX**

Manufacturing Account

Manufacturing account prepared in a case where goods are manufactured by the firm itself. Manufacturing accounts represent cost of production. Cost of production then transferred to Trading account where other traded goods also treated in a same manner as Trading account.

Important Point Related to Manufacturing Account

Apart from the points discussed under the section of Trading account, there are a few additional important points that must be discuss here"

- **Raw Material :** Raw material is used to produce products and there may be opening stock, purchases and closing stock of Raw material. Raw material is the main and basic material to produce items.
- **Work-in-Progress :** Work-in-progress means the products, which are still partially finished, but they are important parts of the opening and closing stock. To know the correct value of the cost of production, it is necessary to calculate the correct cost of it.
- **Finished Product :** Finished product is the final product, which is manufactured by the concerned business and transferred to trading account for sale.
- **Raw Material Consumed (RMC) :** It is calculated as.

  RMC = Opening Stock of Raw Material + Purchases – Closing Stock

- **Cost of Production :** Cost of production is the balancing figure of Manufacturing account as per the format given below.

Manufacturing Account (For the year ending…….)			
Particulars	**Amount**	**Particulars**	**Amount**
To Opening Stock of Work-in-Progress	xx	By Closing Stock of Work-in-Progress	xx
To Raw Material Consumed	x	By Scrap Sale	xx
To Wages	xxx	By Cost of Production	xxx
To Factory overhead xx		(Balancing figure)	
Power or fuel xx			
Dep. of Plant xx			
Rent- Factory xx			
Other Factory Exp. xx	xxx		
Total	**xxxx**	**Total**	**xxxx**

Profit and Loss Account

Profit and Loss account represents the Gross profit as transferred from Trading Account on the credit side of it along with any other income received by the firm like interest, Commission, etc.

Debit side of profit and loss account is a summary of all the indirect expenses as incurred by the firm during that particular accounting year. For example, Administrative Expenses, Personal Expenses, Financial Expenses, Selling and Distribution Expenses, Depreciation, Bad Debts, Interest, Discount, etc. Balancing figure of profit and loss accounts represents the true and net profit as earned at the end of the accounting period and transferred to the Balance Sheet.

Profit and Loss Account of M/s …… (For the period ending …….)			
Particulars	**Amount**	**Particulars**	**Amount**
To Salaries	XX	By Gross Profit b/d	XX
To Rent	XX		
To Office Expenses	XX	By Bank Interest received	XX
To Bank charges	XX	By Discount	XX
To Bank Interest	XX	By Commission Income	XX
To Electricity Expenses	XX	By Net Loss transfer to Balance sheet	XX
To Staff Welfare Expenses	XX		
To Audit Fees	XX		
To Repair and Renewal	XX		
To Commission	XX		
To Sundry Expenses	XX		
To Depreciation	XX		
To Net Profit transfer to Balance sheet	XX		
Total	**XXXX**	**Total**	**XXXX**

Balance Sheet

A balance sheet reflects the financial position of a business for the specific period of time. The balance sheet is prepared by tabulating the assets (fixed assets + current assets) and the liabilities (long term liability + current liability) on a specific date.

Assets : Assets are the economic resources for the businesses. It can be categorized as :

- **Fixed Assets :** Fixed assets are the purchased/constructed assets, used to earn profit not only in current year, but also in next coming years. However, it also depends upon the life and utility of the assets. Fixed assets may be tangible or intangible. Plant and machinery, land and building, furniture and fixture are the examples of a few Fixed Assets.
- **Current Assets :** The assets, which are easily available to discharge current liabilities of the firm called as Current Assets. Cash at bank, stock and sundry debtors are the examples of current assets.
- **Fictitious Assets :** Accumulated losses and expenses, which are not actually any virtual assets called as Fictitious Assets. Discount on issue of shares, Profit and Loss account and capitalized expenditure for time being are the main examples of fictitious assets.
- **Cash and Cash Equivalents** " Cash balance, cash at bank and securities which are redeemable in next three months are called as Cash and Cash equivalents.
- **Wasting Assets :** The assets, which are reduce or exhausted in value because of their use are called as Wasting Assets. For example, mines, queries, etc.
- **Tangible Assets :** The assets, which can be touched, seen and have volume such as cash, stock, building, etc. are called as Tangible Assets.
- **Intangible Assets :** The assets, which are valuable in nature, but cannot be seen, touched and not have any volume such as patents, goodwill and trademarks are the important examples of intangible assets.

- **Accounts Receivables :** The bills receivables and sundry debtors come under the category of Accounts Receivables.
- **Working Capital :** Difference between the Current Assets and the Current Liabilities are called as Working Capital.

Liability : A liability is the obligation of a business/firm/company arises because of the past transactions/events. Its settlement/repayments are expected to result in an outflow from the resources of respective firm.

There are two major types of Liability :

- **Current Liabilities :** The liabilities which are expected to be liquidated by the end of current year are called as Current Liabilities. For example, taxes, accounts payable, wages, partial payments of long term loans, etc.
- **Long-term Liabilities :** The liabilities which are expected to be liquidated in more than a year are called as Long-term Liabilities. For example, mortgages, long-term loan, long-term bonds, pension obligations, etc.

Balance Sheet as on .....

Liabilities	Amount	Assets	Amount
Fixed Liabilities	xxxxx	Fixed Assets	xxxxx
Long Term Liability	xxxxx	Intangible Assets	xxxxx
Current Liabilities	xxxxx	Current Assets	xxxxx
		Fictitious Assets	xxxxx
	xxxxx		xxxxx

From the following Trial Balance prepare Trading and Profit and Loss Account for the year ended 31st December, 2009 and Balance Sheet as on the date :

	Dr. (Rs.)	Cr. (Rs.)
Drawing	10000	
Stock as on 1-1-2009	46000	
Purchase and Purchase returns	150000	600
Cash in hand	3400	
Bank balance	22660	
Freehold Premises	38600	
Trade expenses	840	
Printing, Stationary and advertising	1640	
Professional charges	280	
Commission received		3300
Investment as on 1st Jan. @ 10%	4000	
Interest on Deposit		200
Sundry debtors and creditors	36000	29000
Wages	25000	
Salaries	14000	
Rent Rates and Insurance	4000	
Capital		114700
Income Tax	1600	
Discount allowed and received	6300	4600
Sales Returns and Sales	500	208000
Bills Receivables and Bills Payables	3200	10000
Office Furniture	3050	
Bad Debts Provision		670
	371070	371070

Adjustments :

1. Provide for wages Rs.5000.
2. Write off 5% depreciation on freehold premises and 10% on office furniture.
3. Insurance to the extent of Rs.200 belongs to 2010.
4. Closing stock as on 31.3.2010 is Rs.52000.
5. Charge interest on capital @ 5%.

Trading and Profit and Loss A/c for The Year Ending 31st December, 2009

Dr. **Cr.**

Particulars		Rupees	Particulars		Rupees
Opening Stock		46,000	Sales	208000	207500
Purchases	15000		Less Sales Returns	500	
Less Purchase Returns	600	149400	Closing Stock		52000
Wages A/c	25000				
Add Outstanding Wages	5000	30000			
Gross Profit c/f		34100			
		259,500			259500
Trade Expenses		840	Balance b/f		34100
Painting, Stationary & Advt.		1640	Commission Received		3300
Professional Charges		280	Interest on Deposit	200	
Salaries		14000	Add Accured Interest	200	400
Discount		6300	Discount received		4600
Rent, Rates & Insurance	4000				
Less Prepaid	200	3800			
Interest on Capital		5735			
Depreciation on Premises		1930			
Depreciation on Furniture		305			
Net Profit		7570			
		42400			42400

Balance Sheet as on 31st December, 2009

Particulars		Rupees	Particulars		Rupees
Capital	114700		Freehold Premises	38600	36670
Add Profit	7570		Less Depreciation	1930	
Add Interest on Capital	5735		Office Furniture	3050	
	128005		Less Depreciation	305	2745
Less Drawings	10000		Closing Stock		52000
Less Income Tax	1600	116405	Debtors	36000	
Sundry Creditors		29,000	Less Prov. For Debtors	670	35330
Bills Payable		10000	Bills Receivables		3200
Outstanding Wages		5000	Investement	4000	
			Add Accured Interest	200	4200
			Prepaid Insurance		200
			Bank		22660
			Cash		3400
		160405			160405

Notes :

1. Income Tax payment is the personal responsibility of the proprietor, hence treated as drawings.

2. Implied adjustment. In the Trial Balance investments of Rs.4000 is given on which interest is receivable @ 10% p.a. Interest for the whole year comes to Rs.400 and there is only Rs.200 received during the year. It means Rs.200 is still receivable on account of interest (accrued interest).

2.6.2 Ratio Analysis

Financial statements aim at providing financial information about a business enterprise to meet the information needs of the decision-makers. Financial statements prepared by a business enterprise in the corporate sector are published and are available to the decision-makers. These statements provide financial data which require analysis, comparison and interpretation for taking decision by the external as well as internal users of accounting information. This act is termed as financial statement analysis.

Objective of Ratio

- To know the areas of the business which need more attention
- To know about the potential areas which can be improved with the effort in the desired direction
- To provide a deeper analysis of the profitability, liquidity, solvency and efficiency levels in the business
- To provide information for making cross-sectional analysis by comparing the performance with the best industry standards
- To provide information derived from financial statements useful for making projections and estimates for the future.

Advantage of Ratio

- **Helpful in Analysis of Financial Statements :** Ratio analysis is an extremely device for analyzing the financial statements. It helps the bankers, creditors, investors, shareholders etc. in acquiring enough knowledge about the profitability and financial health of the business.
- **Simplification of Accounting Data :** Accounting ratio simplifies and summarizes a long array of accounting data and makes them understandable.
- **Helpful in Comparative Study :** With the help of ratio analysis comparison of profitability and financial soundness can be made between one firm and another in the same industry.
- **Helpful in Locating The Weak Spots of The Business :** Current year's ratios are compared with those of the previous years and if some weak spots are thus located, remedial measures are taken to correct them.
- **Helpful in Forecasting :** Accounting ratios are very helpful in forecasting and the plans for the future.
- **Estimate about The Trend of The Business :** If accounting ratios are prepared for a number of years, they will reveal the trend of costs, sales, profits and other important facts.
- **Fixation of Ideal Standards :** Ratios helps us in establishing ideal standards of the different item of the business. By comparing the actual ratios calculated at the end of the year with the ideal ratios, the efficiency of the business can be easily measured.
- **Effective Control :** Ratio analysis discloses the liquidity, solvency and profitability of the business enterprise. It helps them in discharging their managerial functions e.g., planning, organizing, directing, communicating and controlling more effectively.

Limitation of Ratio

- **Limitations of Accounting Data :** Means and not the End: Ratios are means to an end rather than the end by itself.
- **Lack of Ability to Resolve Problems :** Their role is essentially indicative and of whistle blowing and not providing a solution to the problem.
- **Lack of Standardized Definitions :** There is a lack of standardized definitions of various concepts used in ratio analysis. For example, there is no standard definition of liquid liabilities. Normally, it includes all current liabilities, but sometimes it refers to current liabilities less bank overdraft.
- **Lack of Universally Accepted Standard Levels :** There is no universal yardstick which specifies the level of ideal ratios. There is no standard list of the levels universally acceptable and, in India, the industry averages are also not available.
- **Ratios based on Unrelated Figures :** A ratio calculated for unrelated figures would essentially be a meaningless exercise.

Types of Ratio

Accounting ratios are an important tool of financial statements analysis. A ratio is a mathematical number calculated as a reference to relationship of two or more numbers and can be expressed as a fraction, proportion, percentage and a number of times.

The ratios may be divided into these types :

1. **Liquidity Ratios :** To meet its commitments, business needs liquid funds. The ability of the business to pay the amount due to stakeholders as and when it is due is known as liquidity and the ratios calculated to measure it are known as 'Liquidity Ratios'. These are essentially short-term in nature
2. **Solvency Ratios :** Solvency of business is determined by its ability to meet its contractual obligations towards stakeholders, particularly towards external stakeholders and the ratios calculated to measure solvency position are known as 'Solvency Ratios'. These are essentially long-term in nature.
3. **Activity (or Turnover) Ratios :** This refers to the ratios that are calculated for measuring the efficiency of operations of business based on effective utilization of resources. Hence, these are also known as 'Efficiency Ratios'.
4. **Profitability Ratios :** It refers to the analysis of profits in relation to revenue from operations or funds (or assets) employed in the business and the ratios calculated to meet this objective are known as 'Profitability Ratios'.

1. Liquidity Ratios : Liquidity ratios are calculated to measure the short-term solvency of the business, i.e. the firm's ability to meet its current obligations. These are analyzed by looking at the amounts of current assets and current liabilities in the balance sheet. The two ratios included in this category are current ratio and liquidity ratio.

- Current Ratio
- Liquidity or Quick Ratio
- Cash Ratio

(a) Current Ratio : These ratios focus on the availability of cash to manage the day to day operations of the company. AS per norms Current Assets should be twice of Current Liabilities i.e. 2 : 1.

$$\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

- **Current Assets Means :** Cash and Bank Balance + Bills Receivable + Stock + Marketable Securities + Prepaid Expenses + Advance Payment + Income due but not Received
- **Current Liabilities Means :** Trade Payable or Creditors + Bills Payable + Bank Overdraft + Short Term Loan and Advance + Outstanding Expenses + Provision for Taxation + Unclaimed Dividend + Income Received in Advance

(b) **Liquidity or Quick Ratio :** The quick assets are defined as those assets which are quickly convertible into cash. It is ignore Stock and Prepaid Exp.

$$\text{Quick Ratio} = \frac{\text{Total Current Assets} - \text{Inventory}}{\text{Total Current Liabilities}}$$

Quick Acid/Liquidity Assets = Current Assets – Stock + Prepaid Exp.

(c) **Cash Ratio :** The cash ratio is another measurement of a company's liquidity and their ability to meet their short-term obligations. The formula for the cash ratio, like the current and the quick ratio uses current liabilities as the denominator in the formula:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Cash Equivalents}}{\text{Total Current Liabilities}}$$

2. Solvency Ratio : Solvency ratios are calculated to determine the ability of the business to service its debt in the long run. The following ratios are normally computed for evaluating solvency of the business.

- Debt-Equity Ratio
- Debt to Capital Employed Ratio
- Proprietary Ratio
- Total Assets to Debt Ratio
- Interest Coverage Ratio

(a) **Debt-Equity Ratio :** Debt-Equity Ratio measures the relationship between long-term debt and equity. If debt component of the total long-term funds employed is small, outsiders feel more secure. It is considered to be safe if debt equity ratio is 2 : 1.

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Owners' Equity}} = \frac{\text{Total Assets} - \text{Total Owners' Equity}}{\text{Total Owners' Equity}}$$

Debt = Debenture + Loan

Total Owner's Equity = Preference Share Capital + Equity Share Capital + Reserve – Accumulated Loses – Fictitious Assets

OR

Total Assets – Total Debts

(b) **Debt to Capital Employed :** The Debt to capital employed ratio refers to the ratio of long term debt to the total of external and internal funds (capital employed or net assets).

Long term Debt/Capital Employed (Net Assets)

Capital employed = the long-term debt + shareholders' funds.

(c) **Proprietary Ratio :** Proprietary ratio expresses relationship of proprietor's (shareholders) funds to net assets. Higher proportion of shareholders' funds in financing the assets is a positive feature as it provides security to creditors.

The **proprietary ratio** (also known as net worth ratio or equity ratio) is used to evaluate the soundness of the capital structure of a company. It is computed by dividing the stockholders' equity by total assets.

$$\text{Proprieatary ratio} = \frac{\text{Stockholders' equity}}{\text{Total assets}} \times 100$$

Some analysts prefer to exclude intangible assets (goodwill etc.) from the denominator of the above formula. In that case, the formula would be written as follows :

$$\text{Proprieatary ratio} = \frac{\text{Stockholders' equity}}{\text{Total assets} - \text{Intangible assets}} \times 100$$

(d) **Total Assets to Debt Ratio :** The higher ratio indicates that assets have been mainly financed by owners funds and the long-term loans is adequately covered by assets. This ratio measures the extent of the coverage of long-term debts by assets. It is calculated as

$$\text{Total Debt To Total Assets} = \frac{\text{Short Term Debt} + \text{Long Term Debt}}{\text{Total assets}}$$

(e) **Interest Coverage Ratio :** It is a ratio which deals with the servicing of interest on loan. It is a measure of security of interest payable on long-term debts. It expresses the relationship between profits available for payment of interest and the amount of interest payable. It is calculated as follows:

$$\frac{\text{Earning Before Interest and Tax}}{\text{Interest Expense}}$$

(3) Activity (or Turnover) Ratio : These ratios measure how well the facilities at the disposal of the concern are being utilized. These ratios are known as turnover ratios as they indicate the rapidity with which the resources available to the concern are being used to produce sales. These ratios are generally calculated on the basis of sales or cost of sales.

- Inventory Turnover
- Trade receivable Turnover
- Trade payable Turnover
- Investment (Net assets) Turnover
- Fixed assets Turnover
- Working capital Turnover

(a) **Inventory Turnover :** It determines the number of times inventory is converted into revenue from operations during the accounting period under consideration. It expresses the relationship between the cost of revenue from operations and average inventory.

$$\frac{\text{Ending Inventory}}{\text{Cost of Goods Sold}/365}$$

OR

$$\frac{\text{Cost of Goods Sold}}{\text{Average Stock or Inventory}}$$

Cost of Goods Sold = Opening Stock + Net Purchase + Direct Expenses – Closing Stock

OR

Cost of Goods Sold = Net Assets – Gross Profit

$$\text{Average Stock} = \frac{\text{Opening + Closing Stock}}{2}$$

(b) **Trade receivable Turnover :** It expresses the relationship between credit revenue from operations and trade receivable. It is calculated as follows:

$$\frac{\text{Net Sales}}{\text{Average Gross Receivables}}$$

OR

$$\frac{\text{Average Gross Receivables}}{\text{Annual Net Sales} / 365}$$

Where Average Trade Receivable = (Opening Debtors and Bills Receivable + Closing Debtors and Bills Receivable)/2

(c) **Trade payable Turnover :** Trade payables turnover ratio indicates the pattern of payment of trade payable. As trade payable arise on account of credit purchases, it expresses relationship between credit purchases and trade payable.

$$\frac{\text{Purchases}}{\text{Average Accounts Payable}}$$

OR

$$\frac{\text{Average Accounts Payable}}{\text{Purchases} / 365}$$

Average Trade Payables = Creditors in the beginning + Bills payables in the beginning + Creditors at the end + Bills payables at the end/2

(d) **Investment (Net assets) Turnover :** It reflects relationship between revenue from operations and net assets (capital employed) in the business. Higher turnover means better activity and profitability. It is calculated as follows :

$$\frac{\text{Net Sales}}{\text{Capital Employed}}$$

Capital Employed = Shareholder's Fund + Long term Liabilities

(e) **Fixed assets Turnover**

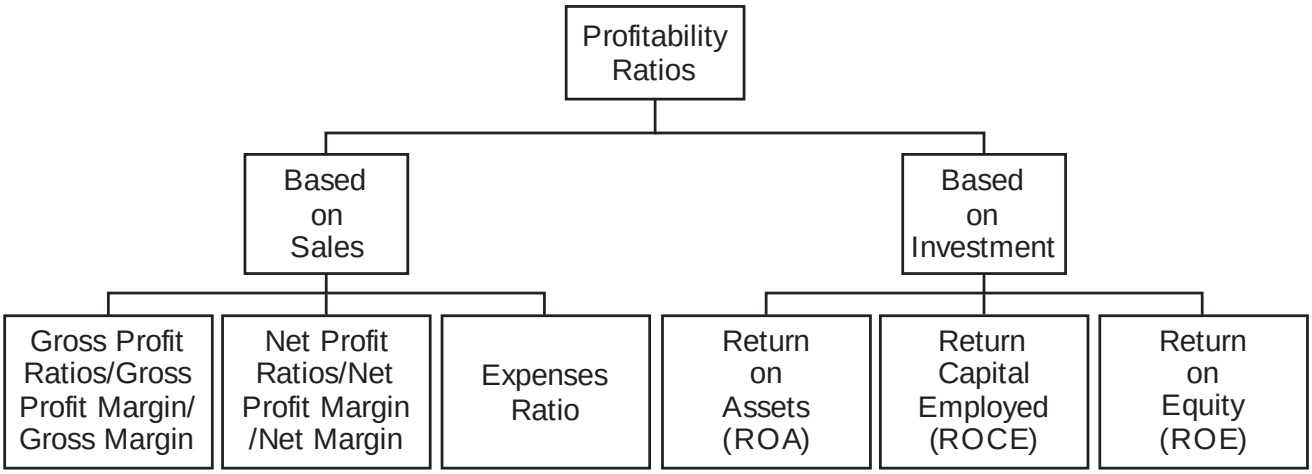
$$\frac{\text{Net Sales}}{\text{Net Fixed Assets}}$$

(f) **Working capital Turnover**

Working Capital Turnover Ratio : It is calculated as follows :

$$\frac{\text{Net Sales}}{\text{Average Working Capital}}$$

(4) Profitability Ratios : There is a close relationship between the profit and the efficiency with which the resources employed in the business are utilized. The various ratios which are commonly used to analyze the profitability of the business are:



- Gross profit ratio
- Operating ratio
- Operating profit ratio
- Net profit ratio
- Return on Investment (ROI) or Return on Capital Employed (ROCE)
- Return on Net Worth (RONW)
- Earnings per share
- Book value per share
- Dividend payout ratio
- Price earnings ratio

1. Gross Profit Ratio : Indicates the relationship between net sales revenue and the cost of goods sold. This ratio should be compared with industry data as it may indicate insufficient volume and excessive purchasing or labor costs.

Formula : $\frac{\text{Gross Profit} \times 100}{\text{Net Sales}}$

- Gross Profit = Net Sales – Cost of Goods Sold
- Net Sales = Cash Sales + Credit Sales – Sales Return
- Cost of Goods Sold = Opening Stock + Purchase + Direct Expenses – Closing Stock

2. Operating Ratio : Operating Ratio is Computed to express the relationship between operating costs and Net Sales.

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100$$

OR

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit (Net Sales – Operating Cost)}}{\text{Net Sales}} \times 100$$

Operating Cost = Cost of Goods Sold + Operating Expenses

Cost of Goods Sold = Opening Stock + Purchase + Direct Expenses – Closing Stock

Operating Expenses = Adm. Exp. + Selling and Distribution Exp.
+ Interest on Short term Loan + Discount allowed and bad debts.

3. Operating Profit Ratio : Operating ratio is computed to express cost of operations excluding financial charges in relation to revenue from operations. A corollary of it is 'Operating Profit Ratio'. It helps to analyses the performance of business and throws light on the operational efficiency of the business.

$$\frac{\text{Operating Profit}}{\text{Net Sales}}$$

Operating Profit = Net Profit + Non – Operating Profit Expenses – Non Operating Income

Net Sales = Cash Sales + Credit Sales – Sales Return

4. Net Profit Ratio : This is the ratio of net income or profit after taxes to net sales. Net Profit as used here, is the balance of Profit and Loss Account, which is arrived at after considering all non-operating income such as interest on investments, dividends received, etc. and all non-operating expenses like loss on sale of investments, provision for contingent liabilities, etc.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

5. Return on Investment (ROI) or Return on Capital Employed (ROCE) : Capital employed means the long-term funds employed in the business and includes shareholders' funds, debentures and long-term loans.

$$\frac{\text{Profit Before Inerest and Tax}}{\text{Capital Employed}} \times 100$$

6. Return on Net Worth (RONW) : Return on Net worth is a ratio developed from the perspective of the investor and not the company. It explains the efficiency of the Shareholder's capital to generate profit.

$$\frac{\text{Profit after Tax}}{\text{Share holder Fund}} \times 100$$

7. Earnings Per Share : This ratio is very important from equity shareholders point of view and also for the share price in the stock market. This also helps comparison with other to ascertain its reasonableness and capacity to pay dividend.

Earning Per Share (basic formula)

$$\text{Earning Per Share} = \frac{\text{Profit} - \text{Preferred Dividends}}{\text{Weighted Average Common Shares}}$$

Earning Per Share (net income formula)

$$\text{Earning Per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Average Common Shares}}$$

Earning per share (continuing operations formula)

$$\text{Earning Per Share} = \frac{\text{Income from Continuing Operations} - \text{Preferred Dividends}}{\text{Weighted Average Common Shares}}$$

8. Book Value Per Share : This ratio is again very important from equity shareholders point of view as it gives an idea about the value of their holding and affects market price of the shares.

Book Value per share = Equity shareholders' funds/Number of Equity S hares

Equity shareholder fund refers to Shareholders' Funds – Preference Share.

9. Dividend Payout Ratio : This reflects company's dividend policy and growth in owner's equity.

$$\text{Dividend payout ratio} = \frac{\text{Total dividend for the period}}{\text{Net income available to common stockholders}}$$

10. Price Earnings Ratio : It reflects investor's expectation about the growth in the firm's earnings and reasonableness of the market price of its shares. P/E Ratio vary from industry to industry and company to company in the same industry depending upon investors perception of their future.

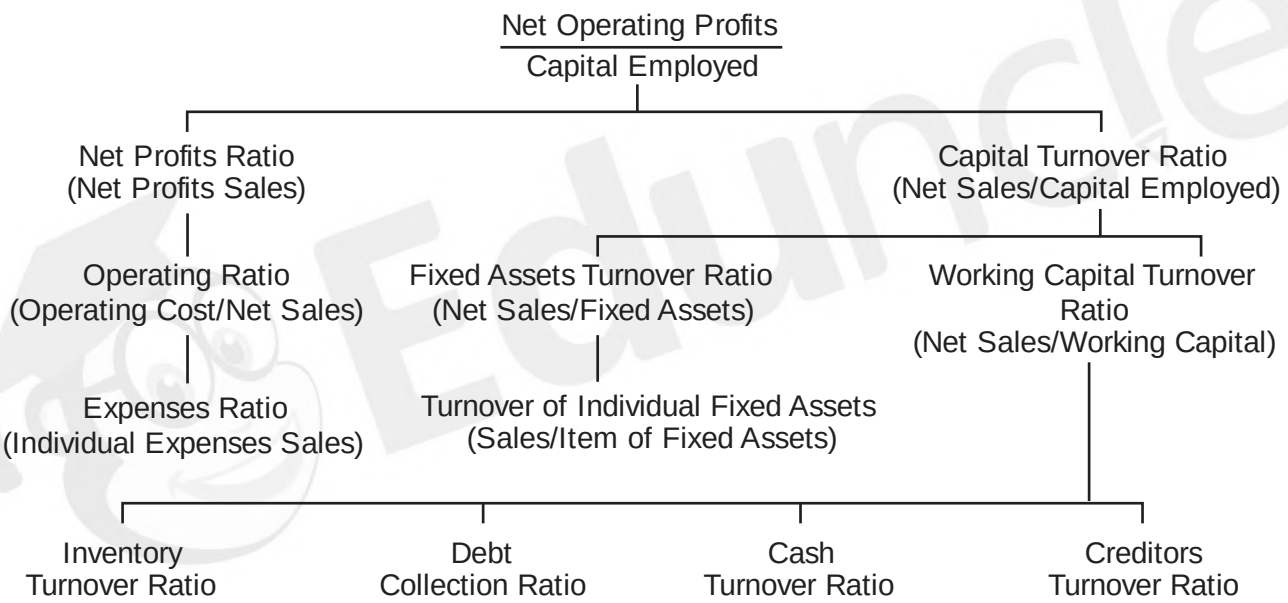
$$\text{Price-Earning (EP Ratio)} = \frac{\text{Price per share}}{\text{Earning per share}}$$

Du Pont Chart

The name comes from the Du Pont Corporation that started using this formula in the 1920s. Du Pont explosives salesman Donaldson Brown invented this formula in an internal efficiency report in 1912.

The Du Pont Chart helps management to identify the areas of problems, which affect profit, In other words, management can easily visualize the different forces affecting profits and profits could be improved either by putting capital into effective use, which will result in higher turnover ratio, or by better sales efforts, which will result in higher profit ratio.

The Control Chart
Return on Investment (ROI)



2.6.3 Fund Flow Analysis

Fund Flow statement is one of the important management tools for decision making. The statement is prepared taking into account revenue statement and position statement of the organization. It is a comparative analytical statement between two consecutive years. The statement reveals the funds inflow and outflow during an accounting period. In order to measure the soundness and solvency of business, preparation of fund flow is a must.

By preparing Fund Flow statement, management will be able to know how much funds are available and where exactly they can be deployed. It is a statement which portrays the sources from which funds are obtained and the uses to which they are being put.

According to Patton and Patton, "The fund statement is an important device for bringing to light the underlying financial movements - the ebb and flow of funds."

According to Smith and Brown, "Funds Flow Statement is prepared to indicate in summary form, changes occurring in items of financial position between two different balance sheet dates."

Thus Flow of fund means inward and outward movement of funds of an enterprise. Basically, funds denote to working capital and flow means movement and changes. In this regard, flow of funds encompasses movement in working capital items such as current assets and current liabilities. Fund flow analysis is the analysis of flow of fund from current asset to fixed asset or current asset to long term liabilities or vice-versa.

Fund Refers to Working Capital

Working Capital : Depending on the user's purpose, the term '**Funds**' may be used differently. Literally, it means a supply that can be drawn upon. In this sense it is used to mean cash, total current assets or working capital. We use it here in the sense of working capital meaning total current assets less current liabilities

Funds flow is used to refer to changes in or movement of current assets and current liabilities. This movement is of vital importance in understanding and managing the operations of a business.

Schedule of Working Capital Changes for The Year Ended		
	I Year	**II Year**
Current Assets:		
Cash		
Sundry Debtors		
Stock		
Pre-payment		
Investments		
Less current liabilities		
Sundry Creditors		
Income tax due		
Dividend due		
Increase/Decrease		
Alternative Form		
Current Assets:	Increase	Decrease
Cash		
Sundry Debtors		
Stock		
Pre-paid expenses		
Less current liabilities		
Sundry Creditors		
Income tax due		
Dividend due		
Increase/Decrease in working capital		

Effect of Working Capital

- Increase in the current year current assets than previous year - **Increase in Working Capital**
- Decrease in the current year current assets than previous year - **Decrease in Working Capital**
- Increase in the current year current liabilities than previous year - **Decrease in Working Capital**

- Decrease in the current year current liabilities than previous year - **Increase in Working Capital**

Significance of Fund Flow Statement

- Analytical Tool
- Design Policies
- Control Device
- Reflect Financial Position
- Uses for Working Capital
- Help to Lenders
- Direction for Business

Limitations of Fund Flow Statement :

- It ignores non-fund items.
- It ignores to project future operations.
- It also ignores transactions when they occur between current accounts and non-current accounts.
- This is not ideal tool for financial analysis.
- It does not provide any additional information to the management because financial statements are simply rearranged and presented.

Preparation of Fund Flow Statement

A funds flow statement is prepared on the basis of information contained in the consecutive two years Balance Sheet and that is based on the Profit and Loss Account for the period concerned.

This statement consists of two parts :

- Sources of Funds
- Application of Funds

Sources of Funds : The source of funds can be both internal as well as external.

Internal sources Funds from operations is the only internal source of funds. However, following adjustments will be required in the figure of Net Profit for finding out real funds from operations:

Add the following items as they do not result in outflow of funds:

(i) Depreciation on fixed assets.

(ii) Preliminary expenses or goodwill, etc., written off.

(iii) Contribution to debenture redemption funds, transfer to general reserve, etc., if they have been deducted before arriving at the figure of net profit.

(iv) Provision for taxation or proposed dividend are usually taken as appropriation of profits only and not current liabilities for the purposes of Funds Flow Statement.

This is discussed in detail later. Tax or dividends actually paid are taken as applications of funds. Similarly, interim dividend paid is shown as an application of funds. All these items will be added back to net profit, if already deducted, to find funds from operations.

(v) Loss on sale of fixed assets.

Deduct the following items as they do not increase funds :

(i) Profit on sale of fixed assets since the full sale proceeds are taken as a separate source of funds and inclusion here will result in duplication.

(ii) Profit on revaluation of fixed assets.

(iii) Non-operating incomes such as dividend received or accrued dividend, refund of income-tax, rent received or accrued rent. These items increase funds but they are non-operating

incomes. They will be shown under separate heads as 'source of funds' in the Funds Flow Statement.

External Sources These Sources Include

Funds from long-term loans Long-term loans such as debentures, borrowings from financial institutions will increase the working capital and, therefore, there will be flow of funds. However, if the debentures have been issued in consideration of some fixed assets, there will be no flow of funds.

Sale of fixed assets Sale of land, buildings, long-term investments will result in generation of funds.

Funds from increase in share capital Issue of shares for cash or for any other current asset results result in increase in working capital and hence there will be flow of funds.

Applications of Funds : The uses to which funds are put are called 'applications of funds'. Following are some of the purposes for which funds may be used:

Purchase of fixed assets Purchase of fixed assets such as land, building, plant, machinery, long-term investments, etc., results in decrease of current assets without any decrease in current liabilities. Hence, there will be a flow of funds. But in case shares or debentures are issued for acquisition of fixed assets, there will be no flow of funds.

Payment of dividend Payment of dividend results in decrease of a fixed liability and, therefore, it affects funds. Generally, recommendation of directors regarding declaration of dividends (i.e. proposed dividends) is simply taken as an appropriation of profits and not as an item affecting the working capital. This has been explained in detail later.

Payment of fixed liabilities Payment of a long-term liability, such as redemption of debentures or redemption of redeemable preference shares, results in reduction of working capital and hence it is taken as an application of funds.

Payment of tax liability Provision for taxation is generally taken as an appropriation of profits and not as an application of funds. But if the tax has been paid, it will be taken as an application of funds. This has been explained in detail later.

Fund Flow Statement	
Sources of Funds	**Applications of Funds**
1. Funds from Operations	**1.** Loss from Operations
2. Issue of Shares	**2.** Buy back of Equity Shares and Redemption of Preference Shares
3. Issue of Debentures	**3.** Redemption of Debentures
4. Raising Long-Term Loans	**4.** Repayment of Long-Terms Loans
5. Sale of Fixed Assets	**5.** Purchase of Fixed Assets
6. Non-Trading Receipts	**6.** Non-Trading Payments

Computation of Fund from Operation

Statement Showing 'Funds from Operations'	
Particulars	**Amount**
Net Profit As per Profit & Loss A/c	
(A) Items to be Added back to Net Profit :	
(a) Non-Fund Items :	
(i) Depreciation	
(ii) Good will written off	
(iii) Preliminary Expenses	
(iv) Patent Rights, Trade Marks and Copy Right.	
(v) Discount on issue of Debentures & Shares.	
(vi) Deferred Revenue Expenditure such as, Advertisement Suspense A/c.	
(b) Non-Trading Losses:	
(i) Loss on sale of Fixed Assets	
(ii) Appropiration of Profit :	
Transfer to General Reserve	
Transfer to Sinking Fund	
Transfer to Dividend	
Equalisation Fund etc.	
(i) Proposed Dividend	
(ii) Provision for Taxation	
(B) Items to be Deducted from Net Profit	
(i) Profit on sale of Fixed Assets	
(ii) Receipt of Dividend	
(iii) Re-Transfer of Excess Provision	

Adjusted Profit & Loss A/c			
Dr.			**Cr.**
To Depreciation	xxxx	By Opening Balance Profit	xxxx
To Goodwill Written off	xxxx	By Profit on sale of Fixed Assets	xxxx
To Patent Written off	xxxx	By Profit on Sale of Investments	xxxx
To Loss on Sale of Fixed Asset	xxxx	By Profit on redemption of Liability	xxxx
To Loss on Sale of Investment	xxxx	By Transfer from General Reserve	xxxx
To Loss on redemption of liability	xxxx	By Balancing Figure	xxxx
To Preliminary Expenses off	xxxx	Fund From Operations(FFS)	
To Proposed Dividend	xxxx		
To Transfer to General Reserve	xxxx		
To Current Year Provision for Taxation	xxxx		
To Current Year Provision for Depreciation	xxxx		
To Balancing Figure	xxxx		
(Fund Lost in Operations)			

2.6.4 Cash Flow Analysis

Cash Flow Statement deals with flow of cash which includes cash equivalents as well as cash. This statement is an additional information to the users of Financial Statements. The statement shows the incoming and outgoing of cash.

A Cash-Flow statement may be defined as a summary of receipts and disbursements of cash for a particular period of time. It also explains reasons for the changes in cash position of the firm. Transactions which increase the cash position of the entity are called as inflows of cash and those which decrease the cash position as outflows of cash.

ICAI has issued Accounting Standard – 3 for preparing Cash Flow Statement. According to amendment to companies Act, it has been made mandatory for all companies to implement Cash Flow Statement in their annual reports. Cash flow statement as per cash inflows and cash outflows are broadly divided into three categories:

(a) Cash flow from Operating Activities

(b) Cash flow from Investing Activities

(c) Cash flow from Financing Activities

(a) Cash flow from Operating Activities : Cash flows from operating activities: Operating activities are the principal revenue-producing activities of the enterprise and other activities that are not investing and financing activities. Operating activities include cash effects of those transactions and events that enter into the determination of net profit or loss.

Cash flows from operating activities	
Net income	$ XXXX
+ Depreciation expense	XXXX
+ Decrease in account receivable	XXXX
+ Decrease in inventories	XXXX
+ Decrease in prepaid expenses	XXXX
+ Increase in account payable	XXXX
+ Increase in accured expenses payable	XXXX
+ Increase in deferred income taxes payable	XXXX
+ Non-operating losses deducted in computing net income	XXXX
- Increase in account receivable	XXXX
- Increase in inventories	XXXX
- Increase in prepaid expenses	XXXX
- Decrease in account payable	XXXX
- Decrease in accured expenses payable	XXXX
- Decrease in deferred income taxes payable	XXXX
- Non-operating incomes added in computing ne income	XXXX
Net cash provided (or used) by operating activities	$ XXXX

(b) Cash flow from Investing Activities : Cash flows from investing activities is the second section of a statement of cash flows which details cash flows related to acquisition and disposal of a company's long-term investments such as property, plant and equipment, investment in subsidiaries and associates, etc.

Cash flow from Investments include all the transactions involving acquiring and selling long-term investment, property, plant and equipment

These items are found in non-current portion of the balance sheet :

- Purchase of property, plant and equipment (cash outflow)
- Sales of property, plant and equipment (cash inflow)
- Investment in joint ventures and affiliates (cash outflow)
- Payments for business acquired (cash outflow)
- Proceeds from sales of assets (cash inflow)
- Investments in Marketable Securities (cash outflow)

(c) Cash flow from Financing Activities : Financing activities are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise. Following are the examples of cash flows arising from financing activities:

1. Cash proceeds from issuing shares or other similar instruments
2. Cash proceeds from issuing debentures, loans notes, bonds and other short-term borrowing.
3. Cash repayments of amounts borrowed
4. Payment of dividend.

A.	**Cash Flow from Investing Activities**		
	Sale of Fixed Assets	–	
	Sale of Long Term Investments	–	
	Interest Received	–	
	Dividend Received	–	
	Rent Received	–	
	(–) Purchase of Fixed Assets	–	
	(–) Purchase of Long Term Investment	–	–
	Net Cash Flow from Investing Activities		
B.	**Cash Flow from Financing Activities**		
	Proceeds from Issue of Shares	–	
	Proceeds from Issue of Debentures and Other Long Term Borrowings	–	
	(–) Repayment of Debentures and Other Long Term Borrowing	–	

Information Required For Cash Flow Statement

The following basic information is needed for the preparation of a cash flow statement:

- **Comparative Balance Sheets :** Balance Sheets at the beginning and at the end of the accounting period indicate the amount of changes that have taken place in assets, liabilities and capital.
- **Profit and Loss Account :** The profit and loss account of the current period enables to determine the amount of cash provided by or used in operations during the accounting period after making adjustments for non-cash, current assets and currents liabilities.
- **Additional Data :** In addition to the above statements, additional data are collected to determine how cash has been provided or used e.g. sale or purchase of assets for cash.

Performa of Cash Flow Statement (AS-3) (Indirect Method)		
Particulars	**Amount**	**Amount**
Cash Flow from Operating Activities		
Net Profit for the Current Year	xxx	
Add : Non Cash and Non-Operating Expenses		
Depreciation	xxx	
Loss on Sale of Fixed Assets or Investments	xxx	
Goodwill Written off	xxx	
Preliminary Expenses Written off	xxx	
Provision for Taxation	xxx	
Provision for Dividend	xxx	
Transfer to Gross Profit	xxx	
Dividends, Interest Paid	xxx	
	XXX	
Less: Non Cash and Non-Operating Income		
Dividend, Interest Received	xxx	
Profit on Sale of Fixed Assets or Investments	xxx	
Operating Profit before adjustment of changes in Current Assets and Current Liabilities	XXX	
Add : Increase in Current Liabilities	xxx	
Decrease in Current Assets	xxx	
	XXX	
Less: Decrease in Current Liabilities	xxx	
Increase in Current Assets	xxx	
Operating profit before extra-ordinary items adjustment	XXX	
Less: Extra Ordinary Items:		
Income Tax Paid	xxx	
Cash flow for used in Operating Activities		**XXXX**
Cash Flow from Investing Activities		
Purchase of fixed Assets or Investment	xxx	
Sale of fixed Assets or Investments	xxx	
Dividend or Interest Received	xxx	**XXXX**
Cash flow for used in Investing Activities		

I. Cash Flow from Financing Activities

- **Add :** Proceeds from issue of shares and Debentures
- **Add :** Proceeds from Other Long term Borrowings
- **Less :** Final Dividend Paid
- **Less :** Interim Dividend Paid
- **Less :** Interest on Debentures and Loans paid
- **Less :** Repayment of Loans
- **Less :** Redemption of Debentures/Preference shares

Extraordinary items (+/–)

Net Cash from Financing Activities

II. Net Increase/Decrease in Cash and Cash Equivalents (I+II+III)

III. Add : Cash and Cash Equivalent in the beginning of the year.

- Cash in Hand
- Cash at Bank (**Less:** Bank Overdraft)

- Short-term Deposits
- Marketable Securities.

IV. Cash and Cash Equivalents at the end of the year

- Cash in Hand
- Cash at Bank (**Less :** Bank Overdraft)
- Short-term Deposit
- Marketable Securities

Notes :

1. Amounts in brackets indicate negative amount, i.e., amounts that are to be deducted.
2. Increase/Decrease in unpaid Interest on Debentures/Loans affects the Cash Flow from Financing Activities and not Operating Activities.
3. Increase/Decrease in Unclaimed Dividend affects the Cash Flow from Financing Activities and hot Operating Activities.
4. Increase/Decrease in Accrued Interest on Investment affects the Cash Flow from Investing Activities and not Operating Activities.

Direct Method

In the direct method, the major heads of cash inflows and outflows (such as cash received from trade receivables, employee benefits, expenses paid, etc.) are to be considered.

As the different line items are recorded on accrual basis in statement of profit and loss, certain adjustments are to be made to convert them into cash basis such as the following:

1. Cash receipts from customers = Revenue from operations + Trade receivables in the beginning – Trade receivables in the end.
2. Cash payments to suppliers = Purchases + Trade Payables in the beginning – Trade Payables in the end.
3. Purchases = Cost of Revenue from Operations – Opening Inventory + Closing Inventory.
4. Cash expenses = Expenses on accrual basis + Prepaid expenses in the beginning and Outstanding expenses in the end – Prepaid expenses in the end and Outstanding expenses in the begin

Format : Direct Method

Statement of Cash Flows (Direct Method)….. Company Name For the year ended…..		
Cash flows from operating activities		
Cash received from customers		
Interest received		
Cash paid for merchandise		
Cash paid for Income taxes		
Net cash flow from operating activities	XXX(A)	
Cash flows from investing activities		
Purchase of marketable securities		
Proceeds from sale of marketable securities		
Cash paid for purchase of plant assets		
Loan made to borrowers		
Collection on loans		
Cash received from sale of plant assets	XXX(B)	
Net cash from investing activities		
Cash flows from financing activities		
Proceeds from borrowings		
Cash paid to settle short-term debts		
Cash paid to retire long term debt	XXX(C)	
Cash received from issuing stock		
Cash paid for dividends		
Net cash provided by financing activities		
		A + B
Net increase (decrease) in cash		XXX
Cash and cash equivalent at the beginning of the year		XXX
Cash and cash equivalents at the end of the year		

Advantage of Cash Flow Statement

1. **Discloses Cash Movement :** The primary function carried out by a cash flow statement is to disclose the inward and outward movement i.e. inflow and outflow of cash. It indicates all possible changes in cash position of a firm in quantitative terms accompanied by the reasons to support such changes. Hence, a cash management can exercise full control over cash movement with the help of cash flow statement.
2. **Helps in Financial Planning :** It plays a vital role in short-term financial planning. It helps in forecasting cash requirements, determining the quantity of required cash in advance, the amount that can be generated form internal sources and the volume expected to be acquired from outside sources. Thus, the future course of action related to cash can be planned in the light of cash flow statement.
3. **Aids Internal Financial Management :** Cash flow statement is of great help to management in formulating policies related to internal financial management. Since, any information pertaining to the availability of cash from operations can be obtained by means of cash flow statement. Thus, a management can make important decisions involving dividend policy, replacement of assets, repayment of long-term loans etc.
4. **Reveals Success or Failure of Cash Planning :** It reveals the extent of success or failure of cash planning. As a management may hold comparison of cash flow of current year with projected cash budget of that period, variations, if any with relevant cause may be detected and necessary remedial actions can be initiated.

5. **Adds Efficiency to Cash Management :** Cash is the very foundation of all business operations. Therefore, a projected cash flow statement provides sufficient guidelines to the management for planning and coordinating financial operations properly, effectively and efficiently.
6. **Helps to determine the likely Flow of Cash :** Projected cash flow statements help the management to determine the likely inflow or outflow of cash from operations and the amount of cash required to be raised from other sources to meet the future needs of the business.
7. **Supplemental to funds Flow Statement :** Cash flow analysis supplements the analysis provided by funds flow statement, as cash is a part of the working capital.

Limitation of Cash Flow Statement

Cash flow statement is an important analytical tool. Yet, it is advised to employ this technique with care and precautions for the purpose of analysis due to the limitations attached to it. These limitations are :

1. **Misleading Inter-Industry Comparison :** Cash flow statement does not measure the economic efficiency of one company in relation to another. Usually a company with heavy capital investment will have more cash inflow. Therefore, inter-industry comparison of cash flow statement may be misleading.
2. **Misleading Comparison over a Period of Time :** Just because the company's cash flow has increased in the current year, a company may not be better off than the previous year. Thus, the comparison over a period can be misleading.
3. **Misleading Inter-Firm Comparison :** The terms of purchases and sales will differ from firm to firm; Moreover, cash inflow does not always mean profit. Therefore, inter-firm comparison of cash flows may also be misleading.
4. **Influenced by Changes in Management Policies :** The ash balance as disclosed by the cash flow statement may represent the real liquidity position of the business. The cash can be easily influenced by purchases and sales policies, by making certain advance payments or by postponing certain payments.
5. **Cannot be Equated with Income Statements :** Cash flow statement cannot be equated with the income Statement. An income statement takes into account both cash as well as non-cash items. Hence ne: cash flow does not necessarily mean net income of the business.
6. **Not a Replacement of Other Statements :** Cash flow statement is only a supplement of funds flow statement and cannot replace the income statement or the funds flow statement as each one has its own function or purpose of preparation.
7. **Others**
    1. Net cash flow does not necessarily imply the net income of the business. As unlike income statement, cash flow statement takes into account only cash discarding noncash items from its preview.
    2. Cash flow statement no doubt depicts the cash position but the cash balance shown by cash flow statement may not be the true representative of real liquid position of the business. As it can be easily influenced by postponing purchase and other payments.

    Despite the drawbacks, of cash flow statement, it is a useful supplementary accounting instrument serving as a barometer in evaluating profitability and financial position of an enterprise